GERTSRIKAN, S.D. [Hertsriken, S.D.]; NOVIKOV, N.N. [Novykov, M.M.]; KOPAN', V.S.

Distribution of crystal lattice defects along the diameter of the specimen in various types of deformation. Ukr.fiz.zhur. 4 no.4:530-534 Jl-Ag '59. (MIRA 13:4)

1. Kiyevskiy gosudarstvennyy universitet im. T.G.Shevchenko.
(Crystals--Defects) (Deformations (Mechanics))

L 16117-65 EWT(m)/EWP(w)/EWA(d)/EWP(t)/EWP(k)/EWP(b) Pf-4 ASD(m)-3/
IJP(c) JD/JG

ACCESSION NR: AP4044171 S/0185/64/009/008/0890/0899

AUTHOR: Kopan', V. S. B

TITLE: Motion of dislocations in Wollaston wires upon annealing

SOURCE: Ukrayins'ky*y fizy*chny*y zhurnal, v. 9, no. 8, 1964, 890-899

TOPIC TAGS: dislocation motion, platinum Wollaston wire, annealing, dislocation steps

ABSTRACT: The author shows in his experimental work that platinum Wollaston wires of 13 microns diameter contract upon annealing by about 3%, and their resistance decreases by 6%. Photographs show strong kinking. The energy of formation of dislocation steps is found to be 13 kcal/g. a tgn. The observed effects can be qualitatively explained by dislocation creep on heating under high residual stress. The results are in agreement with the assumption (G. R. Pierey, Phil. Mag. 1, 201(1960)) that the dislocations are slowed down by surface coating, with the resulting accumulation of defects during the deformation. Orig. art.

Card 1/2

L 16117-65
ACCESSION NR: AP4044171

has: 4 figures, 2 tables

ASSOCIATION: Ky*yivs'ky*y derzhuniversy*tet im. T. G. Skevchenka (Kiev State University)

SUBMITTED: 25Nov63 ENCL: 00

SUB CODE: MM, SS NO REF SOV: 004 OTHER: 014

Card 2/2

L 34097-66 EWT(m)/T/EWP(t)/ETI IJP(c) JD/JW/JG/GD

ACC NR: AT6013833 SOURCE CODE: UR/0000/65/000/000/0099/0109

52
B+1

AUTHOR: Kopan', V. S.; Skorokhod, M. Ya.

ORG: Kiev State University im. T. G. Shevchenko (Kiyevskiy gosudarstvennyy universitet)

TITLE: Kinetics of annealing of vacancies in platinum

SOURCE: AN UkrSSR. Issledovaniye nesovershenstv kristallicheskogo stroyeniya (Study of imperfections in crystal structure). Kiev, Naukova dumka, 1965, 99-109

TOPIC TAGS: platinum, activation energy, crystal vacancy, thermoelectromotive force, BOND ENERGY, ANNEALING, WIRE

ABSTRACT: The aim of the study was to obtain experimental values of the bonding energy of bivacancies in platinum, and, by using the theory advanced by M. de Jong and J. S. Koehler (Phys. Rev. 129, 40-61, 1963), to correlate the data already obtained. The annealing of vacancies was studied on platinum wires (99.98%) 100 mμ in diameter by measuring the thermo-emf of a thermocouple made up of a quenched and an annealed specimen. E_m^1, the activation energy of motion of vacancies, was found to be 20.7×10^{-18}J, and B_2, the energy of formation of bivacancies, 3×10^{-18}J. The theoretical dependence of E_m, the activation energy of the annealing process, on the concentration of defects was confirmed experimentally: the authors' hypothesis that the limit toward which

Card 1/2

L 34097-66

ACC NR: AT6013833

the E_m values tend is E_m^1 was shown to be correct. The value obtained for B_2 should not be considered definitive for platinum of other grades, since the concentration of impurities in the platinum employed was 0.1%. Orig. art. has: 6 figures and 6 formulas.

SUB CODE: 11 / SUBM DATE: 31Aug64 / ORIG REF: 004 / OTH REF: 014

Card 2/2 vmb

KOPAN', V.S.

Determining the surface tension of platinum. Ukr. fiz. zhur. 10 no.2:223-224 F '65. (MIRA 18:4)

1. Kiyevskiy gosudarstvennyy universitet im. Shevchenko.

L 9448-66 EWT(m)/T/EWP(t)/EWP(b)/EWA(c) IJP(c) JD

ACC NR: AP5026921 SOURCE CODE: UR/0185/65/010/010/1147/1149

AUTHOR: Kopan', V. S. 44,55

ORG: Kiev State University im. T. H. Shevchenko (Kyyivs'kyy derzhuniversytet) 44,55

TITLE: Heat resistance of aluminum fiber wire 18 44,55

SOURCE: Ukrayins'kiy fizychnyy zhurnal, v. 10, no. 10, 1965, 1147-1149

TOPIC TAGS: aluminum, aluminum wire, fiber wire, wire, heat resistance, tensile strength

ABSTRACT: Aluminum fiber wire 100 μ in diameter consisting of 400 oxidized fibers about 5.2 μ in diameter was tested for heat resistance at a temperature 200—300C above the melting point of aluminum. The fiber wire endured these temperatures for up to 10 min, whereas ordinary aluminum wire melted instantaneously at 600—640C. Fiber wire failed gradually with gradually decreasing wire thickness. Fiber wire also did not separate into individual fibers with splitting and bending at room temperature. Fiber wire 9 μ in diameter made from fibers 0.44 μ thick had a tensile strength of 34 kg/mm^2 compared with 20 kg/mm^2 for ordinary wire of the same diameter. The tensile strength of ordinary and fiber wire decreased by half at 500 and 730K, respectively. The higher heat resistance of aluminum fiber wire can be explained by the presence of a hard oxide layer between grains-fibers which obstructs the emergence of dislocations in the base metal, and by the shortening of the wire fibers under the

Card 1/2

L 9448-66

ACC NR: AP5026921

0

action of surface-tension forces when heated to high temperatures. Orig. art. has: 3 figures. [MS]

SUB CODE: 13,11/ SUBM DATE: 20May65/ ORIG REF: 009/ OTH REF: 006/ ATD PRESS: 4154

Card 2/2 pm

L 15789-66 EWT(m)/T/EWP(t) IJP(c) JD
ACC NR: AP5026923 SOURCE CODE: UR/0185/65/010/010/1154/1157

AUTHOR: Kopan', V. S.; Khymenko, M. V.

ORG: Kiev State University im. T. G. Shevchenko (Kyyivs'kyy derzhuniversytet)

TITLE: Fault formation in gold microwire

SOURCE: Ukrayins'kyy fizychnyy zhurnal, v. 10, no. 10, 1965, 1154-1157

TOPIC TAGS: gold, fine wire, crystal lattice dislocation, crystal defect, annealing, surface tension, material deformation, copper, metal diffusion, grain size, electric resistance, electron microscope

ABSTRACT: A study was carried out of annealing of copper covered gold wire deformed with its copper covering. The samples were 34, 10 and 6 μ in diameter. The annealing isochrons of two samples with diameter 10 μ were obtained and indicated a two-stage process, one stage commencing at 1073K and due to surface tension. Faults were observed and at times one portion of the sample crept over another. The observed bulges are faults which have almost disappeared as a result of diffusion. During the first stage of annealing the thick samples shorten less than the thin ones, probably because the dislocation density is smaller and because it is more difficult for kinks to form in thick samples. The high residual resistance of the investigated samples might indicate a tenfold increase in the number of dislocations compared to ordinary bulk samples. It is concluded that the considerable resistance drop in vacuum annealing of gold microwire is not due to evaporation of copper atoms which may have diffused into it. The most likely cause of the large residual resistance in the deformation of a microwire of diameter close to the grain size are large dislocation

Card 1/2

ACC NR: AP5026923

aggregates due to the stopping of dislocations by the copper covering during preparation and by an oxide film after removal of the copper with nitric acid. A bimetallic 1-mm wire with a 10-μ gold core was rolled into a 2--3 μ foil which after treatment with nitric acid resulted in a gold foil suitable for direct use on the EM-5 electron microscope. At a high beam intensity the gold fused and collected in little circles between two oxide films. From their transparency the films were estimated to be (50--100) x 10^{-8} cm thick. Orig. art. has: 2 figures and 1 table.

SUB CODE: 13,20/ SUBM DATE: 14Jun65/ ORIG REF: 005/ OTH REF: 007

Card 2/2

KOPAN', V.S.

Determining the concentration of nenequilibrium vacancies in metals by the dilatometric method. Fiz. met. i metalloved. 19 no.4:569-576 Ap '65. (MIRA 18:5)

1. Kiyevskiy gosudarstvennyy universitet imeni Shevchenko.

KOPAN', V.S.

Hardening of tin wire. Fiz.-met. i metalloved. 20 no.5:795-797 N '65. (MIRA 18:12)

1. Kiyevskiy gosudarstvennyy universitet imeni T.G.Shevchenko. Submitted October 20, 1964.

KOPANAROV, Dimitur, ikonomist

Importance of organizational and technical undertakings, and computation of their econonic effect in woodworking enterprises. Durvomebel prom 5 no.2:26-28 Mr-Ap '62.

1. Durzhavno industrialno predpriiatie "N. Parapunov", Raslog.

KOPANCHUK, G. M.

Cranks and Crankshafts; Diesel Motor

Elimination of a defect in one of the cranks of the "Clark-Bross" diesel engine crankshaft. Energ. biul No. 3, 1952

SO: Monthly List of Russian Accessions, Library of Congress, June 1953, Uncl.

1. KOPANCHUK, G. M.

2. USSR (600)

4. Diesel Motor

7. Removing a defect from the crankshaft of the diesel "Clark Broths." Rab.energ., 2, no. 11, 1952.

9. Monthly List of Russian Accessions, Library of Congress, March 1953, Unclassified.

1. KOPANCHUK, G. M.

2. USSR (600)

4. Electric Motors

7. Controls for idle running electric motors of metal-cutting machines. Stan. i instr. 23 no. 12, 1952.

9. Monthly List of Russian Accessions, Library of Congress, March 1953. Unclassified.

DANK; STOKOLOV.

On the problem of controls for idle run. Stan. i instr. 24 no.5:32 My '53. (MLRA 6:6)

(Kopanchuk, G.M.) (Electric motors)

KOPANETS, E. G., ANTUFYEV, Yu. P., GONCHAR, V. Yu., L'VOV, A. N. , TEYTRO, S. P. TUTAKIN, P. M. and VALTER, A. K.

"Investigation of gamma-Radiation from Si^{30} $(p,\gamma)P^{31}$ Reaction,"

paper submitted at the A-U Conf. on Nuclear Reactions in Medium and Low Energy Physics, Moscow, 19-27 Nov 57.

Physico-Tech. Inst, Acad. Sci. UkrSSR

KOPANETS, YE. G.

21 (7), 21 (8)

AUTHOR: Rudakov, V. P. SOV/89-7-1-18/26

TITLE: IX All-Union Conference on Nuclear Spectroscopy
(IX Vsesoyuznoye soveshchaniye po yadernoy spektroskopii)

PERIODICAL: Atomnaya energiya, 1959, Vol 7, Nr 1, pp 76-79 (USSR)

ABSTRACT: The IX All-Union Conference was held from January 26 to February 2, 1959 at Khar'kov. More than 300 participants heard 100 lectures, the most important of which dealt with the following fields: Nuclear Theory, General problems of β-decay. A. S. Davydov (MGU): Theoretical classification of low-energy excited nuclear states. L. K. Peker: Deformed nuclei. [illegible] Birbrair, L. K. Peker, L. A. Sliv (LFTI): Quadrupole oscillations of deformed nuclei. Ye. V. Inopin, V. [illegible], S. P. Tsytko (KhFTI): Calculation of the ft-values with matrix elements for β-transitions by means of the generalized nuclear model. S. T. Belyayev (IAE): Consideration of pair-correlation in nuclei. A. B. Migdal (IAE): The application of the superconductivity model to nuclei for the purpose of calculating their moments of inertia. P. E. Nemirovskiy (IAE): Problems of the neutron stability of nuclei. [illegible] (IAE): The present stage in the theory of β-decay. [illegible],

Card 1/3

V. K. Grigor'yev, V. A. Yerzakov, Yu. V. Trebukhovskiy ([illegible]): Measurement of the angular correlation between electron and neutrino in the decay of the neutron. V. M. Lobashev, V. A. Nazarenko, L. I. Rusinov (LFTI): Measurement of the correlation between the transversal electron polarization and circular polarization of γ-quanta occurring in the decay of Sc^{46} and Co^{60}. Decay Schemes. γ-radiation of Nuclei. [illegible] Antufriyev, A. K. Val'ter, Yu. V. Gonchar, Ye. [illegible], A. N. L'vov, P. M. Tutakin, S. P. Tsytko, [illegible] Sorokin, A. S. Tarnako, I. Ya. Malakhov, A. [illegible] (Fiziko-tekhnicheskiy Khar'kovskiy institut (Physico-technical Institute, Khar'kov)): The $Si^{28,29,30}(p,\gamma)$, $Ne^{20}(p,\gamma)$, $S^{32,34}(p,\gamma)$, $Ar^{40}(p,\gamma)$ and $N^{14}(p,\gamma)$ reactions. D. G. Alkhazov, A. P. Grinberg, G. M. Gusinskiy, M. Kh. Lemberg, V. V. Rozhdestvenskiy, [illegible] of the Leningradskiy fiziko-tekhnicheskiy institut (Leningrad Physico-technical Institute): Investigation of the Coulomb excitation of the lower levels of some nuclei during their bombardment by multiply charged ions (C, N, O, and Ne). A. V. Kalyamin, A. K. Murin, V. N. Pokrovskiy, V. A. Yakovlev (RIAN): New isotopes Tu^{161}, Ho^{153}, Ho^{155} and Ho^{157}. B. S. Dzhelepov, V. A. Sergiyenko (LGU): Decay schemes of some neutron-deficient isotopes, set up on the basis of measurements of the coincidence of the internal conversion electrons. Spectroscopy Engineering. B. S. Dzhelepov, M. S. Ivanov, [illegible], V. G. Chumin (RIAN): β-spectrometer with double focusing. S. A. Baranov, V. V. [illegible], A. G. Zelenkov, A. F. Malov, G. Ya. Shchepkin (IAE): Improved α-spectrometer. [illegible] Barchuk, G. V. Belykh, V. I. Gol'yshkin, V. A. [illegible] (IFAN UkrSSR): Magnetic spectrograph for heavy charged particles. The representatives of the Ministerstvo radiotekhnicheskoy promyshlennosti (Ministry of the Radio-engineering Industry) gave a report about new multipliers. The Conference was closed by B. S. Dzhelepov, who stressed the fact that nuclear tables and reference works ought to be published much more quickly in order to be of real use to the experimenter.

Card 3/3

51

85592

S/048/60/024/007/026/032/XX
B019/B056

24.6100

AUTHORS: Antuf'yev, Yu. P., Val'ter, A. K., Gonchar, V. Yu., Kopanets, Ye. G., L'vov, A. N., and Tsytko, S. P.

TITLE: An Investigation of the Levels of the Cl^{35} Nucleus

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1960, Vol. 24, No. 7, pp. 877-883

TEXT: This paper was read at the 10th All-Union Conference on Nuclear Spectroscopy, which took place from January 19 to January 27, 1960 at Moscow. The authors studied the levels and the quantum characteristics of the Cl^{35}-nucleus by means of the reaction $S^{34}(p,\gamma)Cl^{35}$. The excitation function, the spectrum, and the angular distribution of the γ-rays were measured. The investigations of the S^{34} target were carried out by means of a monochromatic proton beam accelerated to 4 Mev in the electrostatic generator of the FTI AS UkrSSR. The γ-rays were recorded by means of a CsI(Tl) crystal. When studying the excitation function, γ-quanta with $E_\gamma > 1.5$ Mev were recorded. In the Table, the proton energies are given,

Card 1/5

85592

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824430002

at which γ-resonance was observed; also given are the relative intensities of the resonance peaks and the energies of the excited Cl^{35} levels. For the purpose of studying the spectra and the angular distributions of the γ-rays, the authors used a monocrystal scintillation spectrometer. On the basis of the data obtained, the authors suggest the Cl^{35} transition scheme shown in Fig. 5. Resonances in the case of four proton energies (E_p) are discussed in detail. The resonance at E_p = 848 kev corresponds to the 7.196 Mev Cl^{35} level, for which a γ-transition to the 1.22 Mev level occurs with a probability of 95%, and a γ-transition to the ground state of Cl^{35} occurs with a probability of not more than 5%. For the 7.196 Mev level, $1/2^+$ is presumed. The resonance at E_p = 890 kev corresponds to the 7.236 Mev of the level of the Cl^{35}. The γ-spectrum indicates a transition from this level to the ground state. Also transitions to the 1.22-Mev level are possible. For the 7.236-Mev level, $5/2^+$ is assumed. Resonance at E_p = 929 kev corresponds to the 7.274-Mev level, from which transitions to the ground state (70%) and to the 1.22-Mev level (30%) occur. For this level, a spin of 1/2 is assumed, but here a more exact investigation is necessary. The authors carried out preparatory measurements of the spectra

Card 2/5

85592

An Investigation of the Levels of the Cl^{35} Nucleus

S/048/60/024/007/026/032/XX
B019/B056

and of angular asymmetry of the γ-rays for the resonances at E_p = 881, 1024, and 1214 kev. By a further investigation of the angular distributions and correlation of the γ-cascade transitions, the problems arising in this connection are expected to be cleared. The authors thank M. I. Guseva for producing the S^{34} target, and A. A. Tsygikalo and Yu. A. Kharchenko for work carried out on the accelerator. There are 5 figures, 1 table, and 8 references: 4 Soviet and 4 US.

ASSOCIATION: Khar'kovskiy fiziko-tekhnicheskiy institut Akademii nauk USSR (Khar'kov Institute of Physics and Technology of the Academy of Sciences, UkrSSR)

Card 3/5

85592

S/048/60/024/007/026/032/XX
B019/B056

Резонансные энергии протонов и характеристики уровней Cl^{35}, проявляющихся в реакции $S^{34}(p, \gamma)\ Cl^{35}$

№ п/п	E_p, keV	Энергия уровня, MeV	Относительная интенсивность резонансных пиков	№ п/п	E_p, keV	Энергия уровня, MeV	Относительная интенсивность резонансных пиков
1	715	7,067	0,6	23	1450	7,780	1,4
2	756	7,107	1,0	24	1455	7,785	0,5
3	838	7,180	0,7	25	1471	7,801	2
4	848	7,196	1,8	26	1510	7,836	5,5
5	881	7,228	1,4	27	1547	7,875	0,6
6	889	7,236	2,4	28	1559	7,886	2,1
7	928	7,274	3	29	1578	7,905	1,7
8	1020	7,363	4,5	30	1605	7,931	—
9	1057	7,399	0,9	31	1625	7,950	0,7
10	1112	7,452	0,3	32	1650	7,975	1
11	1158	7,497	0,5	33	1665	7,989	1,3
12	1166	7,505	1,3	34	1681	8,005	1,3
13	1184	7,522	0,6	35	1684	8,008	3,0
14	1214	7,551	4,3	36	1721	8,044	3,5
15	1227	7,564	1,4	37	1751	8,073	2,0
16	1267	7,60	4,0	38	1760	8,081	2,2
17	1286	7,621	1,6	39	1778	8,099	2,5
18	1328	7,662	0,8	40	1791	8,112	4,4
19	1341	7,675	1,4	41	1832	8,151	1,5
20	1355	7,688	3,1	42	1842	8,161	2,0
21	1378	7,711	3,4	43	1896	8,214	8,5
22	1418	7,749	1,5	44	1904	8,221	5,5

Card 4/5

KOPANETS, YE.G.

S/048/60/024/007/009/011
B013/B060

AUTHORS: Val'ter, A. K., Antuf'yev, Yu. P., Gonchar, V. Yu., L'vov, A. N., Kopanets, Ye. G., Tsytko, S. P.

TITLE: A Study of the K^{41} Levels With the Aid of the $Ar^{40}(p,\gamma)K^{41}$ Reaction /7

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1960. Vol. 24, No. 7, pp. 891-894

TEXT: This is the reproduction of a lecture delivered at the 10th All-Union Conference on Nuclear Spectroscopy held in Moscow from January 19 to 27, 1960. The investigations described were carried out by using an electrostatic precision generator serving for the proton acceleration. The thin Ar^{40} target was prepared in an electromagnetic separator. The excitation function of the reaction was measured by a scintillation counter provided with a CsI(Tl) crystal, a proton current integrator serving for measuring the proton beam hitting the target. Fig. 1 shows the excitation function of the reaction under investigation in the proton energy range

Card 1/2

of 1085 - 1130 kev. Resonances were identified at 1092, 1107.5, 1114.5, and 1125 kev proton energies. The most intensive resonances occurred at 1092 kev and 1107.5 kev and their gamma spectrum was investigated. Fig. 2 is a graph depicting the soft and the hard part of the gamma spectrum of resonance at 1107.5 kev. These spectra are thoroughly discussed and the authors suggest a decay scheme of the excited K^{41} levels (Fig. 3), which also indicates the spins for some levels. The authors thank N. I. Guseva for having prepared the targets. There are 3 figures and 12 references: 6 Soviet, 5 US, and 1 Canadian.

ASSOCIATION: Fiziko-tekhnicheskiy institut Akademii nauk USSR (Institute of Physics and Technology of the Academy of Sciences UkrSSR)

Card 2/2

S/048/61/025/002/010/016
B117/B212

AUTHORS: Antuf'yev, Yu. P., Gonchar, V. Yu., Kopanets, Ye. G., L'vov, A. N., and Tsytko, S. P.

TITLE: A double-crystal spectrometer and its application in studying (pγ) reactions

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, v. 25, no. 2, 1961, 261-264

TEXT: The present paper was read at the 11th Annual Conference on Nuclear Spectroscopy (Riga, January 25 to February 2, 1961). The authors describe a double-crystal spectrometer with a universal hookup. This makes it possible to use the unit as a coincidence spectrometer and summation spectrometer. The hookup was designed in the fiziko-tekhnicheskiy institut AN USSR (Institute of Physics and Technology of AS UkrSSR) and was used for one year to investigate a number of (pγ) reactions. Fig. 1 shows the circuit diagram of the unit. Two NaI(Tl) crystals, having a diameter of 70 mm, were used as counters; one of them as 60 mm high, and its energy resolution was 11% for 661-kev gamma rays, the other was 40 mm high, but had an energy

Card 1/4

resolution of 14% for gamma rays with the same energy. Besides, 40 mm-high NaI(Tl) crystals with a diameter of 40 mm and a resolution of 9% have been used. The crystals were attached to the photomultiplier of the type ФЭУ-1Б (FEU-1B). The latter was designed by Khlebnikov. The crystals themselves are mounted on a truntable and thus may be adjusted at any angle with respect to each other and the proton beam after modulation the pulses of the ninth dynode of the photomultiplier had a duration of 3 sec and flat peaks. They are amplified by linear amplifiers which have a maximum amplification factor of 100. This amplification may be varied by means of a stepped attenuator. The pulses of the fast-coincidence circuit are emitted from the plates of the photomultiplier. They are modulated by a short circuited delay line (5 m РК-50 (RK-50) cable). Thus, per coincidence circuit a pulse duration of $5 \cdot 10^{-8}$ sec is obtained. A tube of the type 6А3П (6A3P) has been used for the coincidence circuit. The discharge of the latter starts the multivibrator which generates the driving pulse that is transmitted to the pulse-height analyzer of the type АИ-100-1 (AI-100-1). Such a circuit has been described in Ref. 3. The output of the second linear amplifier is fed to the input of the pulse-height analyzer via the limiter and an additional amplifier with an amplification factor of 5. The ana-

lyzer is opened in the case of synchronized pulses of both photomultipliers. After leaving the linear amplifier the pulses have a specific height. A pulse can be transmitted from the photomultiplier via this amplifier which controls the scanning of the electron-beam tube. In this case, a coincidence spectrum is obtained from the other photomultiplier in which part of the total gamma-ray spectrum is separated. It is also possible to transmit a pulse which is equal to the sum of the pulses in both photomultipliers. In this case, a gamma spectrum is obtained in which the sum of the radiation energy attains the given value. In order to illustrate the operation of a spectrometer, test results for a constant Co^{60} source and for a nuclear reaction of $Al^{27}(p\gamma)Si^{28}$ are discussed. Within $\pm$ 15%, the experimental data for the first case agree with the calculated values. For the second case, a much more accurate spectrum has been obtained than with a single-crystal spectrometer. The circuit diagram of the spectrometer may also be used for a Compton spectrometer, and the pulse-height analyzer is also opened by a pulse of a Compton gamma quantum scattered through a certain angle. In addition, it may also be used as spectrometer for total absorption, if the circuit is closed at the presence of a scattered quantum. Apart from the feeding tubes, the circuit consists of 28 more tubes. There are 3 figures

Card 3/4

A double-crystal ...

and 3 references.

ASSOCIATION: Fiziko-tekhnicheskiy institut Akademii nauk USSR (Institute of Physics and Technology of the Academy of Sciences UkrSSR)

Legend to Figure 1: 1) pulse forming blocks; 2) cathode followers; 3) coincidence circuits; 4) composition scheme; 5) linear amplifier; 6) blocking generators; 7) multivibrator.

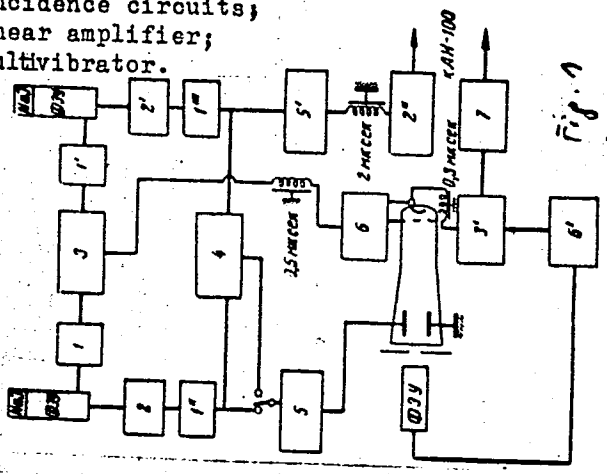


Fig. 1

Card 4/4

S/048/61/025/002/011/016
B117/B212

AUTHORS: Antuf'yev, Yu. P., Val'ter, A. K., Gonchar, V. Yu., Kopanets, Ye. G., L'vov, A. N., and Tsytko, S. P.

TITLE: Radiative proton capture by the S^{34} isotope

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, v. 25, no. 2, 1961, 265-269

TEXT: The present paper was read at the 11th Annual Conference on Nuclear Spectroscopy (Riga, January 25 to February 2, 1961). The authors have investigated the radiative proton capture by S^{34} at a 1214-kev resonance energy. The gamma spectra were analyzed by means of a single-crystal spectrometer, a coincidence spectrometer, and a summation spectrometer. Based on the values obtained, the authors state that the transition of the 7.5-Mev resonance level proceeds only cascade-like over an intermediate level. The energies of the gamma rays in the cascade are 3.17 and 4.38 Mev. A direct transition to the ground state may have a relative intensity of less than 0.5%. The angular distribution of gamma rays was measured for rays with 4.38 Mev and 3.17 Mev at an angular interval of 0-150 degrees on both sides

Card 1/2

of the proton beam. Test data and calculated data were intercompared. They were in best agreement when the spins of the resonance- and intermediate levels were equal to 7/2. The value of the gamma-gamma correlation, measured with the summation spectrometer, corresponds (within the limit of error) to the calculated value, which fact confirms a spin of 7/2. An analysis of the relative transition probability from the resonance level to the ground state and the intermediate state with a spin of $3/2^+$ and $7/2^+$, respectively, leads to the conclusion that the parity of the resonance and intermediate levels must be negative, and that the transition from the resonance level to the ground state must be -M2. The presence of one more level with the spin $7/2^-$ near 7.55 Mev, which corresponds to a resonance level, cannot be explained by single-body excitation on a shell- or generalized model. It may be assumed therefore that this level corresponds to a two-body excitation. A comparison of the values obtained experimentally for the width of the resonance level with those calculated according to a single-body model confirmed this assumption. The authors determined the absolute yield of gamma rays from a thick S^{34} target and found it to be $2.56 \cdot 10^{-9} \pm 15\%$ per each proton decay. The authors thank M. I. Guseva for preparing the isotopic targets, A. A. Tsygikalo, Yu. A. Kharchenko, and the personnel of the electrostatic generator for the smooth operation of the latter.

Card 2/2

Physico-Tech. Inst. Acad Sci Ukr SSR

VAL'TER, A.K.; ANTUF'YEV, Yu.P.; KOPANETS, Ye.G.; L'VOV, A.N.; TSYTKO, S.P.

Quantum characteristics of the 6.847 Me. level of P^{30} observed in the reaction $Si^{29}(p,\gamma)P^{30}$. Zhur. eksp. i teor. fiz. 41 no.5:1449-1453 N '61. (MIRA 14:12)

1. Fiziko-tekhnicheskiy institut AN Ukrainskoy SSR.
(Nuclear reactions) (Phosphorus)
(Silicon—Isotopes)

KOPANETS, YE.G.

1

S/056/62/042/002/013/055
B102/B138

AUTHORS: Antuf'yev, Yu. P., Val'ter, A. K., L'vov, A. N., Kopanets, Ye. G., Tsytko, S. P.

TITLE: Investigation of the resonances in the reaction $Si^{29}(p,\gamma)P^{30}$

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 42, no. 2, 1962, 386-391

TEXT: The relative gamma quantum yield of the reaction $Si^{29}(p,\gamma)P^{30}$ was measured in the range $1.3 < E_p < 1.55$ Mev. Of the five resonances detected, those at E_p = 1375 and 1500 kev were studied in detail; the others were at 1308, 1330, and 1470 kev. For the 1375-kev resonance, related to the 6.892-Mev level of the P^{30} nucleus and the 1500-kev resonance (7.014-Mev level), the spectra and the gamma-quantum angular distributions were determined. The parameters of the gamma lines of these spectra were determined numerically and the decay schemes (Figs. 5, 6) are given. For the most intense line (6.20 Mev) of the 1375-kev resonance spectrum the angular asymmetry of the angular distribution $W = 1 + A\cos^2\vartheta$ (dipole

Card 1/2

Investigation of the resonances ...

γ-transition) was measured as $A = [W(0^\circ) - W(90^\circ)]/W(90^\circ) = -0.63 \pm 0.05$. The corresponding value. $A = 1.07 \pm 0.10$ was measured for the most intense gamma line (2.83 kev) of the 1500-kev resonance spectrum. The values of the level parameters J^π and T are discussed. There are 6 figures, 3 tables, and 5 references: 3 Soviet and 2 non-Soviet. The two references to English-language publications read as follows: P. M. Endt et al. Phys. Rev. 95, 580, 1954; C. Van der Leun, P. M. Endt. Phys. Rev. 110, 89, 1958.

ASSOCIATION: Fiziko-tekhnicheskiy institut Akademii nauk Ukrainskoy SSR (Physicotechnical Institute of the Academy of Sciences Ukrainskaya SSR)

SUBMITTED: August 17, 1961

Figs. 5 and 6. Decay schemes and gamma transitions from the resonance levels 6.892 and 7.014 kev, respectively.

Card 2/2

VAL'TER, A.K.; YSYTKO, S.P.; ANTUF'YEV, Yu.P.; KUPANETS, Ie.G.; L'VOV, A.N.

Studying the levels of P^{31} by the aid of the $Si^{30}(p,\gamma)P^{31}$ reaction. Izv. AN SSSR. Ser. fiz. 25 no.7:854-861 Jl '61. (MIRA 14:7)

1. Fiziko-tekhnicheskiy institut AN USSR.
(Phosphorus--Isotopes) (Silicon--Isotopes) (Nuclear reactions)

S/048/62/026/009/003/011
B125/B186

AUTHORS: Val'ter, A. K., Antuf'yev, Yu. P., Kopanets, Ye. G., L'vov, A. N., and Tsytko, S. P.

TITLE: Decay scheme of the 8.92-Mev state and quantum characteristics of the lower levels of the K^{41} nucleus

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya, v. 26, no. 9, 1962, 1137-1142

TEXT: In continuation of an earlier paper by A. K. Val'ter et al. (Izv. AN SSSR, Ser. fiz., 24, no. 7, 891 (1960) on the reaction $Ar^{40}(p,\gamma)$ the 1107.5 kev resonance is studied. The proton beam from the electrostatic generator of the FTI AN USSR was made to strike the target through a collimating system. Ar^{40} ions were "knocked" into the tantalum backing of such targets. Fig. 1 shows the hard part of the spectrum taken by a γ-spectrometer with an NaI(Tl) crystal. The peaks R, A, B, C, and D of the soft part are at 0.5; 0.6; 1.0; 1.3, and 1.6 Mev. The spectrum of Fig. 3 was taken by a coincidence spectrometer with two crystals. The

Card 1/6

Decay scheme of the 8.92-Mev ...

lines A, B, C, D coincide with the hard part of the spectrum. The anisotropy $A = (W(90^0)-W(0^0))/W(90^0)$ of the angular distribution of the γ-rays at 7.9; 7.3; 6.3; 1.6 and 1.0 Mev is 0.48; -0.54; +0.14 and +0.05, respectively. There is no transition between the 8.92-Mev resonance level and the ground state. Most of the transitions coming from the resonance level have the same probability. The 2.6-Mev state passes to the ground state rather indirectly over the 1.0-Mev level or over the 1.6-Mev level. The line intensity ratio $I_D/I_A \simeq 1$ remains almost constant from $E_\gamma = 6.0$ to $E_\gamma = 6.3$. Then it decreases rapidly to ~ 0.22 with $E_\gamma \sim 6.8$ and ~ 0.18 with $E_\gamma \sim 7.6$ Mev. The levels with 1.0 and 1.3; 1.6 and 2.6 Mev are formed according to the scheme of Nillson S. P., Danske Mat. fys. medd., 29, No 16 (1955) by single-particle excitation when an unpaired proton passes onto states with $1/2^-$, $7/2^-$, $3/2^-$ and $5/2^-$. The 8.92-Mev resonance level occurs when a proton in the state $g_{9/2}$ with $\Omega = 3/2^+$ is captured. For the levels 1.0; 1.6; 6 and 8.82 Mev the spins and parities $1/2^-$, $3/2^-$, $5/2^-$, and $3/2^-$ are the most probable. These values are also compatible with the shell model having a strong jj-coupling. There are 6 figures and 2 tables.

Card 2/6

S/048/62/026/009/003/011
B125/B186

Decay scheme of the 8.92-Mev ...

ASSOCIATION: Fiziko-tekhnicheskiy institut Akademii nauk USSR (Physicotechnical Institute of the Academy of Sciences UkrSSR)

Fig. 1. β-ray spectrum studied with a "single-crystal" spectrometer (hard part).

Fig. 3. β-ray spectrum studied with the aid of a "summing" spectrometer.
Fig. 5. Scheme of the levels of the K^{41} nucleus
Table 2. Possible values of the level spins.

Card 3/6

S/048/62/026/009/003/011
B125/B186

Decay scheme of the 8.92-Mev ...

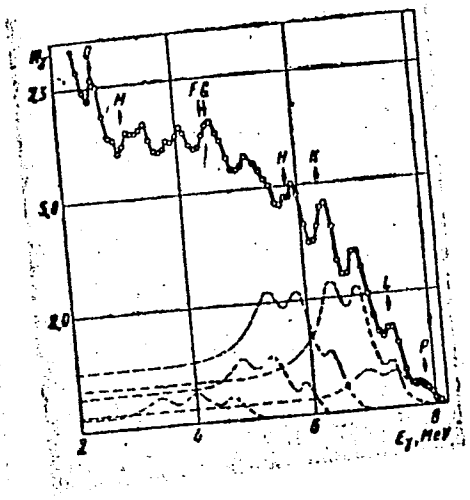
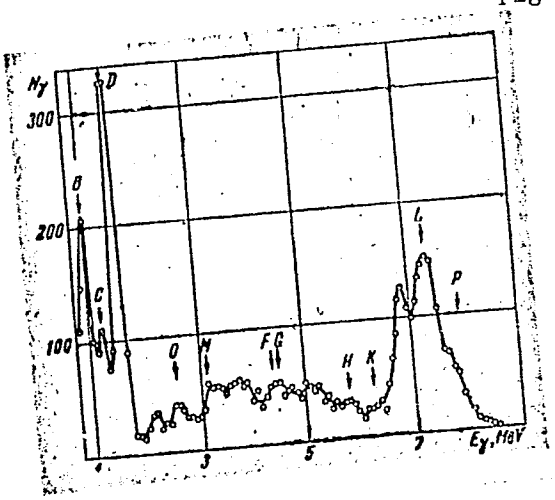


Fig. 1

Fig.3



Card 4/6

Decay scheme of the 8.92-Mev ...

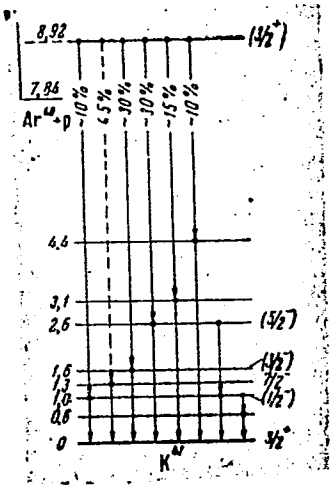


Fig. 5

Card 5/6

S/048/62/026/009/003/011
B125/B186

Decay scheme of the 8.92-Mev ...

Table 2

$I_{pea}=1/2$							$I_{pea}=3/2$						
E^*, MeV	I			$\delta^2=\frac{I_{L=2}}{I_{L=1}}$			E^*, MeV	I			$\delta^2=\frac{I_{L=2}}{I_{L=1}}$		
1,0	1/2	—	5/2	0,03	—	0	1,0	3/2	—	7/2	0,04	—	0
1,6	—	3/2	—	—	0,01	—	1,6	—	5/2	7/2	—	0,03	0,1
2,6	1/2	—	5/2	0	—	0,09	2,6	3/2	—	7/2	0	—	0,03

Card 6/6

VAL'TER, A.K.; ANTUF'YEV, Yu.P.; KOPANETS, Ye.G.; L'VOV, A.N.; TSYTKO, S.P.

Decay scheme of an 8.92 Mev. resonance state and quantum characteristics of the lower levels of the K^{41} nucleus. Izv. AN SSSR. Ser. fiz. 26 no.9:1137-1142 S '62. (MIRA 15:9)

1. Fiziko-tekhnicheskiy institut AN USSR.
(Nuclear reactions) (Quantum theory)
(Potassium—Isotopes)

VAL'TER, A.K.; KOPANETS, Ye.G.; L'VOV, A.N.; TSYTKO, S.P.

Interpretation of the levels of the odd-odd P^{30} nucleus according to Nilsson's model. Izv.AN SSSR.Ser.fiz. 27 no.2: 228-231 F '63. (MIRA 16:2)

1. Fiziko-tekhnicheskiy institut AN UkrSSR.
(Phosphorus isotopes) (Nuclear models)

S/048/63/027/002/011/023
B104/B180

AUTHORS: Val'ter, A. K., Kopanets, Ya. G., L'vov, A. N., and Tsytko, S. P.

TITLE: Investigation of the γ-radiation corresponding to the 1308 kev resonance in the $S^{29}(p,\gamma)P^{30}$ reaction

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya, v. 27, no. 2, 1963, 232 - 234

TEXT: The 1308 kev resonance was investigated using monoenergetic protons and a scintillation γ-spectrometer. The total characteristic of the NaI(Tl) crystal (70 mm diam., 50 mm high) was determined in careful preliminary studies so as to analyze the complicated γ-spectrum reliably. Fig. 1 shows a part of the spectrum corresponding to the resonance. From this spectrum and from the angular distribution of the γ-radiation the decay scheme shown in Fig. 2 was constructed, which corresponds to earlier published data (Tsytko, S. P., Antuf'yev, Yu. P., Zh. eksperim. i teor. fiz., 30, no. 6 (1956)). The most curious result is that the state with 2.94 Mev, with 2^+, decays by a γ-transition with 10% higher probability to the first

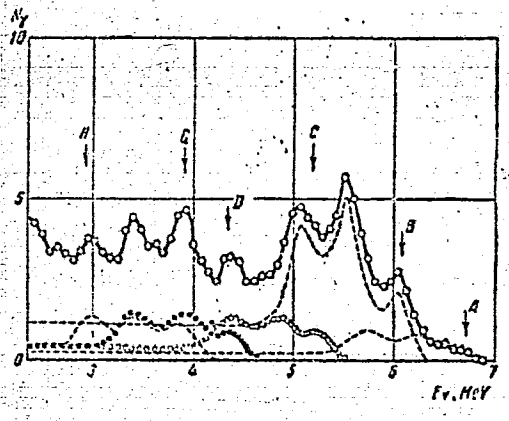
Investigation of the γ-radiation...

excited level than to the ground state.. There are 2 figures and 1 table.

ASSOCIATION: Fiziko-tekhnicheskiy institut Akademii nauk USSR (Physico-technical Institute of the Academy of Sciences UkrSSR)

Fig. 1. Hard section of the γ-spectrum corresponding to the 1308 kev resonance.

Fig. 1



Card 2/3

VAL'TER, A.K.; KOPANETS, Ye.G.; L'VOV, A.N.; STEGNER, A.; TSYTKO, S.P.

Study of the reaction $Mg^{26}(p,\gamma)Al^{27}$ at proton energies ranging from 1.8 to 2 Mev. Izv. AN SSSR. Ser. fiz. 27 no.11:1419-1426 N '63. (MIRA 16:11)

1. Fiziko-tekhnicheskiy institut AN UkrSSR. 2. Institut yadernykh issledovaniy, Varshava, Pol'skaya Narodnaya Respublika (for Stegner).

VAL'TER, A. K.; KOPANETS, Ye. G.; L'VOV, A. N.; TSYTKO, S. P.

"Inelastic Scattering of Protons by Nuclei Ar^{36}."

report submitted for All-Union Conf on Nuclear Spectroscopy, Tbilisi, 14-22 Feb 64.

KhFTI (Ukrainian Physico Technical Inst, Khar'kov)

...ER, A. K.; KOPANETS, Ye. G.; L'VOV, A. N.; TSYTKO, S. P.

"Radiative Capture and Inelastic Scattering of Protons by Nuclei of Mg^{26}."

"Excited States of the Nucleus Al^{27}."

reports submitted for all-Union Conf on Nuclear Spectroscopy, Tbilisi, 14-22 Feb 64.

KhFTI (Ukrainian Physico Technical Inst, Khar'kov)

ACCESSION NR: AP4024050 S/0048/64/028/002/0271/0274

AUTHOR: Val'ter, A.K.; Kopanets, Ye.G.; L'vov, A.N.; Tsyatko, S.P.

TITLE: Radiative proton capture by Mg^{26} at proton energies from 2.0 to 2.3 MeV /Report, Fourteenth Annual Conference on Nuclear Spectroscopy held in Tbilisi 14 to 22 Feb 1964/

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v.28, no.2, 1964, 271-274

TOPIC TAGS: radiative proton capture, decay scheme, Al^{27} decay, Al^{27} levels, Al^{27}, Mg^{26}

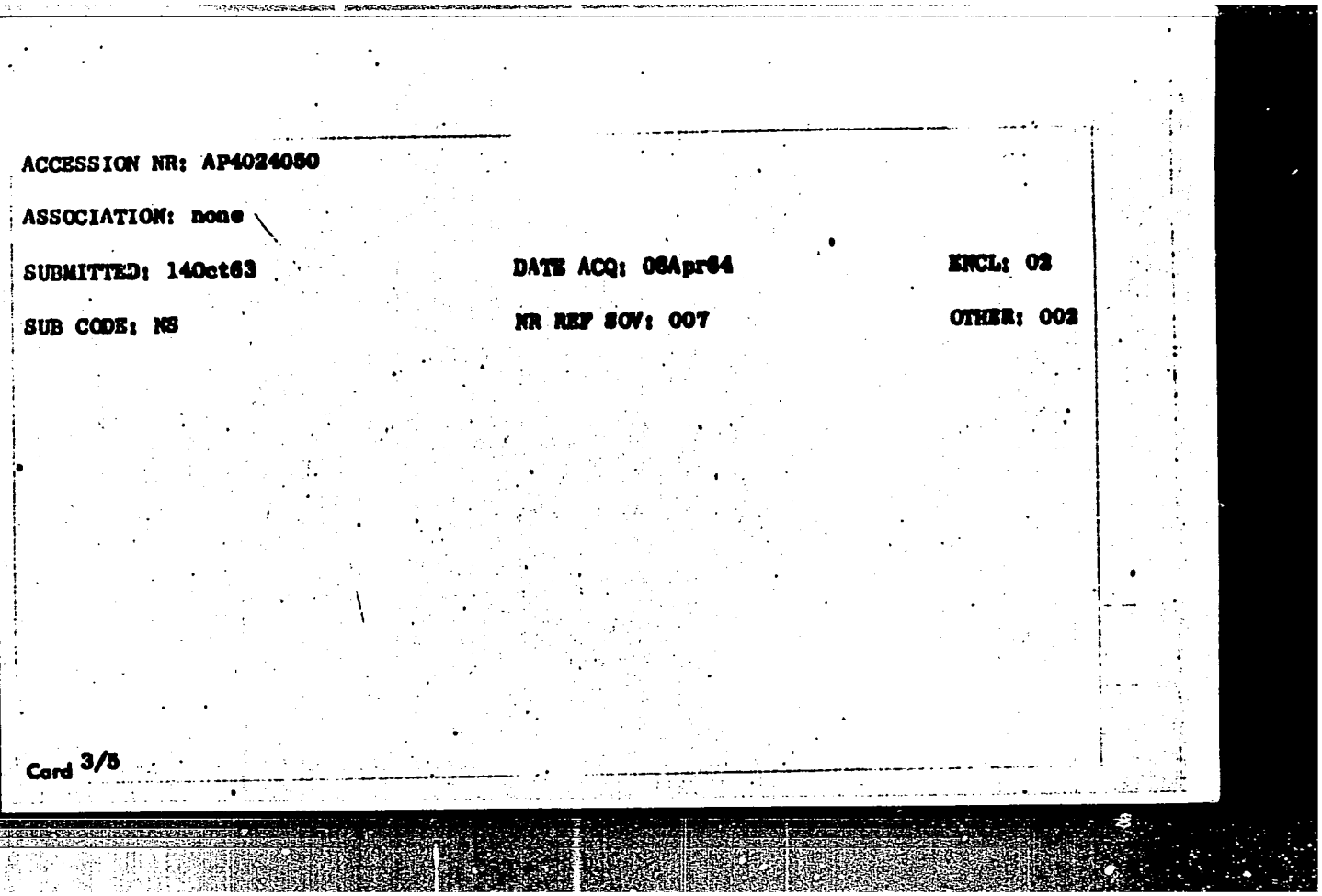
ABSTRACT: Radiative proton capture by Mg^{26} at proton energies below 2 MeV was investigated earlier by the authors (Izv.AN SSSR.Ser.fiz.27,No.10,1963; Ibid.27,No.11, 1963) and by P.M.Endt and C.Van der Leun (Nucl.Phys.34,No.1,1962). As a result of these studies there was obtained information on the levels in Al^{27} in the excitation energy range from 8.0 to 10.2 MeV. The only information available on the levels in the 10.2 to 11.5 MeV range was obtained from a study of elastic scattering of protons by Mg^{26} (A.I.Popov, P.V.Sorokin, V.E.Storizhko and A.Ya.Taranov,Izv.AN SSSR, Ser.fiz.26,1074,1961). Hence in the present work there were investigated the γ-rays

Card 1/2

ACCESSION NR: AP4024050

from the $Mg^{26}(p,\gamma)Al^{27}$ reaction at proton energies from 2.0 to 2.3 MeV in order to obtain information on the characteristics of the levels in Al^{27} in the 10.2 to 10.5 MeV excitation energy range. The source of protons for the experiments was the electrostatic generator of the Physico-technical Institute (Academy of Sciences USSR) (A.K.Val'ter and A.A.Tsygikalo, Pribory i tekhnik eksperim.4,3,1957). The isotopic Mg^{26} target was prepared in an electromagnetic separator by the method of knocking Mg^{26} ions into a tantalum backing. For measuring the excitation function the γ-ray detector was an NaI(Tl) crystal coupled to an FEU-42 photomultiplier. The γ-ray spectrum was investigated by means of the scintillation spectrometer described by Yu.P.Antuf'yev et al (Izv.AN SSSR,Ser.fiz.25,261,1961). The excitation function recorded for the reaction is shown in Fig.1 of the Enclosure. The fifteen observed resonances are characterized in a table; another table gives the results of analyses of the γ-spectrum for six of the resonances. The decay scheme for the six investigated resonance levels is shown in Fig.2 of the Enclosure. The spin assignments arrived at for some of the levels are given in this figure. "The authors express their gratitude to M.I.Gusev for preparing the Mg^{26} targets and to Yu.A.Kharchenko and the personnel servicing the electrostatic accelerator." Orig.art.has: 3 figures and 2 tables.

Card 2/3



ACCESSION NR: AP4024060

ASSOCIATION: none

SUBMITTED: 14Oct63 DATE ACQ: 08Apr64 ENCL: 02

SUB CODE: NS NR REF SOV: 007 OTHER: 002

Card 3/5

VAL'TER, A.K.; KOPANETS, Ye.G.; L'VOV, A.N.; TSYTKO, S.P.

Inelastic scattering of protons by Ar^{36} nuclei. Izv. AN SSSR. Ser. fiz. 28 no.7:1137-1139 Jl '64 (MIRA 17:8)

Radiative capture and inelastic scattering of protons by Mg^{26} nuclei. Ibid.:1140-1144

1. Fiziko-tekhnicheskiy institut AN UkrSSR.

L 11838-66 EWT(m)/EWA(h)

ACC NR: AP5023025 SOURCE CODE: UR/0368/65/002/008/0402/0406

AUTHOR: Kcval', A. A.; Kopanets, Ye. G.; Korda, Yu. S.; Sukhotin, L. N. (Voronezh State University); Tsytko, S. P.

ORG: none

TITLE: Excitation function of the reaction $S^{36}(p\gamma)Cl^{37}$ in the interval E_p = 1.4--2.1 Mev

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu. Prilozheniye, v. 2, no. 8, 1965, 402-406

TOPIC TAGS: sulfur, chlorine, excitation spectrum

ABSTRACT: To obtain new experimental data on the excited states of Cl^{37}, which are quite scanty, the authors attempted to use the hitherto unobserved radiative proton capture reaction $S^{36}(p\gamma)Cl^{37}$, in which the energy release is $Q_m = 8.401 \pm 0.009$ Mev. A thin isotopic S^{36} target sufficiently enriched to make radiative capture of a proton by S^{36} observable, was prepared in an electromagnetic separator by knocking S^{36} ions into a tantalum base. The method of preparing such targets was described by M. I. Guseva (PTE, No. 5, 112, 1952). The target was approximately 3 kev thick at a proton energy on the order of 2 Mev. The proton source was the 4-Mev electrostatic accelerator of the Physicotechnical Institute of the Ukrainian Academy of Sciences. The proton current to the target amounted to 8--10 μa during the course of the experiment, and was monitored with a current integrator. The monitor was a 70 x 50 mm NaI(Tl)

Card 1/2

L 11838-66

ACC NR: AP5028025

crystal. The excitation function of the reaction $S^{36}(p\gamma)Cl^{37}$ was measured in the incoming-proton energy interval 1.4--2.1 Mev at 90° to the proton beam. It is deduced from the measurements that the resonances observed correspond to the Cl^{37} resonance levels produced in the reaction $S^{36}(p\gamma)Cl^{37}$. The positions of the resonances and the corresponding excitation energies of the Cl^{37} nucleus are tabulated. Authors thank M. I. Guseva for preparing the isotopic S^{36} target, Yu. A. Kharchenko for operation of the accelerator, and I. P. Kolodyzhnyy and I. M. Bespalov for help with the measurements. Orig. art. has: 1 figure and 1 table.

SUB CODE: 20/ 07/ SUBM DATE: 07Sep65/ ORIG REF: 003/ OTH REF: 005

HW

Card 2/2

VAL'TER, A.K.; KOPANETS, Ye.G.; TSYTKO, S.P.

Measurement of the linear polarization of 1.97 Mev. gamma rays in the reaction Ar^{36} (p, p' γ) Ar^{36}. Izv. AN SSSR.Ser. fiz. 29 no.5:800-802 My '65.

Levels of the Al^{27} nucleus with excitation energies of 10.495 and 3.95 Mev. Ibid.:803-807 (MIRA 18:5)

1. Fiziko-tekhnicheskiy institut AN UkrSSR.

KOPANETS, Ye.G.; KOVAL', A.A.; SUKHOTIN, L.M.; TSYTKO, S.P.

Levels of the Cl^{35} nucleus with excitation energies between 8.2 and 9.2 Mev. Izv. AN SSSR. Ser. fiz. 29 no.7:1201-1206 Jl '65. (MIRA 18:7)

1. Fiziko-tekhnicheskiy institut AN UkrSSR.

L 21134-66 EWT(m) DIAAP

ACC NR: AP6011988 SOURCE CODE: UR/0048/65/029/005/0800/0802

AUTHOR: Val'ter, A. K.; Kopanets, Ye. G.; Tsytko, S. P.

ORG: Physicotechnical Institute, AN UkrSSR (Fiziko-tekhnicheskiy institut AN UkrSSR)

TITLE: Measurement of linear polarization of 1.97-MeV gamma rays in the reaction Ar sup 36 (p,p' gamma)Ar sup 36 [The paper was presented at the 15th Annual Conference on Nuclear Spectroscopy and Atomic Nuclear Structure held in Minsk from 25 January to 2 February 1965]

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 29, no. 5, 1965, 800-802

TOPIC TAGS: gamma ray, argon, chlorine, potassium, radicisotope, even even nucleus

ABSTRACT: The first level of the Ar^{36} nucleus with energy of 1.97 MeV was observed in reactions Cl^{35}(p gamma) Ar^{36} and K^{39}(p gamma) Ar^{36}. The spin and parity of this level were not found experimentally, although it was assumed that by analogy with other even-even nuclei it was most probably that I sup pi = 2+. As a consequence of this assumption the gamma-transition from the first level to the ground state should be pure E2-radiation. This has been confirmed by the authors experimentally. This article describes the experiment and gives calculations, results, and conclusions. The authors thank M. I. Gusevaya for preparing the target isotopes Ar^{36}, and also I. P. Kolodyazhnyy for assistance during the carrying-out of the measurements. Orig. art. has: 3 figures. [JPRS]

SUB CODE: 20, 18, 07 / SUBM DATE: none / ORIG REF: 002 / OTH REF: 006

Card 1/1

L 21135-66 EWT(m) DIAAP

ACC NR: AP6011989 SOURCE CODE: UR/0048/65/029/005/0803/0807

AUTHOR: Val'ter, A. K.; Kopanets, Ye. G.; Tsytko, S. P.

ORG: Physicotechnical Institute, AN UkrSSR (Fiziko-tekhnicheskiy institut AN UkrSSR)

TITLE: Al sup 27 nucleus energy levels with excitation energies of 10.495 and 3.95 MeV [The paper was presented at the 15th Annual Conference on Nuclear Spectroscopy and Atomic Nuclear Structure held in Minsk from 25 January to 2 February 1965]

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 29, no. 5, 1965, 803-807

TOPIC TAGS: aluminum, gamma radiation, magnesium, excited nucleus

ABSTRACT: This work describes the study of the gamma-radiation due to reaction Mg sup 26 (p gamma) Al sup 27 at E sub p = 2298 keV. The experiments and apparatus are described elsewhere. The authors thank M. I. Gusevaya for preparing the Mg sup 26 target isotopes and also I. P. Kolodyazhnyy for assistance during the carrying-out of the measurements. Orig. art. has: 4 figures and 1 table. [JPRS]

SUB CODE: 20 / SUBM DATE: none / ORIG REF: 003 / OTH REF: 008

Card 1/1 UDC

REEL # 244

Konradi, [redacted] Yu.A.

to

Kopanets, Ye.G.